

## REMARKS

This reply is in response to the Office Action mailed on November 26, 2007 in which claims 1-17 were rejected. Applicant respectfully requests reconsideration of the present application in view of the reasons that follow.

1. Rejection of Claims 1-12 Under 35 U.S.C. § 103(a) as Obvious over Wilcox et al. in View of Sasso et al or Chappius

On page 2 of the Office Action, the Examiner rejected claims 1-12 under 35 U.S.C. § 103(a) as obvious over Wilcox et al., U.S. Patent No. 5,681,289, in view of Sasso et al., U.S. Patent Application No. 2004/0225292, or in view of Chappius, U.S. Patent Application No. 2001/0021852. Applicant has amended independent claim 1 to recite a combination of subject matter that the Applicant believes is allowable under 35 U.S.C. § 103(a).

Independent claim 1, as amended, recites a “device for delivering a substance to a bone” comprising, in combination with other elements, “an insert disposed inside the cannulated bone-screw shaft ... wherein the insert is movable between: a first position wherein the insert completely blocks all of the bone-screw fenestrations; and a second position wherein the insert provides a delivery pathway for the substance between at least one end of the bone screw and the at least one bone-screw fenestration.” The amendment to claim 1 is supported by the specification as originally filed. See e.g., Application, paragraph [0037].

The “device for delivering a substance to a bone” recited in independent claim 1, as amended, would not have been obvious in view of Wilcox et al., alone or in any proper combination with either Sasso et al. or Chappius under 35 U.S.C. § 103(a). Neither Wilcox et al., nor Sasso et al., nor Chappius disclose, teach, or suggest an “insert [that] is movable between: a first position wherein the insert completely blocks all of the bone-screw fenestrations; and a second position ...” as recited in independent claim 1, as amended. (emphasis added). In contrast, Wilcox et al. discloses both “a sump or bladder 100” and “a sump or bladder 110” (both

identified as inserts by the Examiner). See col. 9, lines 14-18, col. 10, lines 42-43, and Figs. 8-13. The “bladder 100” is placed into the “longitudinal cavity 88” of a “nail 85.” See col. 9, lines 14-18 and Figs. 8-10. The “bladder 110” is placed into “nail 105.” See col. 10, lines 42-43 and Figs. 11-13. The “bladder 100” and the “bladder 110” of Wilcox et al. appear to be made from “a thin flexible biocompatible material.” See Abstract. Further, there appears to be a gap between the outer surface of “bladder 100” and the interior surface of “nail 85,” as shown in Fig. 10. There also appears to be a gap between the outer surface of “bladder 110” and the interior surface of “nail 105,” as shown in Figs. 12 and 13.

As such, neither the “bladders” nor any other component taught by Wilcox et al. appear to be an “insert [that] is movable between: a first position wherein the insert completely blocks all of the bone-screw fenestrations; and a second position ...” as recited in independent claim 1, as amended. Further, neither Sasso et al. nor Chappius overcome the deficiencies of Wilcox et al. The “elongate guiding portion 14” of Sasso et al. does not appear to be capable of blocking the “openings 32” of “bone anchor 10.” See e.g., Figs. 2 and 3. Further, the “anchor 10” of Chappius does not appear to include an insert. See e.g., Fig. 1. Because the references cited by the Examiner fail to disclose, teach, or suggest at least one element of independent claim 1, the Applicant respectfully asserts that the “device for delivering a substance to a bone” recited in independent claim 1, as amended, would not have been obvious in view of Wilcox et al., alone or in any proper combination with either Sasso et al. or Chappius under 35 U.S.C. § 103(a).

In view of the amendments to independent claim 1 and the arguments set forth above, Applicant respectfully asserts that independent claim 1 and corresponding dependent claims 2-12 are patentable over Wilcox et al. in view of either Sasso et al. or Chappius under 35 U.S.C. § 103(a).

2. Rejection of Claims 13-17 Under 35 U.S.C. § 103(a) as Obvious over Wilcox et al. in View of Sasso et al or Chappius

On page 2 of the Office Action, the Examiner rejected claims 13-17 under 35 U.S.C. § 103(a) as obvious over Wilcox et al. in view of Sasso et al. or in view of Chappius. Applicant has amended independent claim 13 to recite a combination of subject matter that the Applicant believes is allowable under 35 U.S.C. § 103(a).

Independent claim 13, as amended, recites a “device for delivering a substance to a bone” comprising, in combination with other elements, “an insert disposed inside the cannulated bone-screw shaft such that the insert completely blocks all of the bone screw fenestrations.” The amendment to claim 13 is supported by the specification as originally filed. See e.g., Application, paragraph [0037].

The “device for delivering a substance to a bone” recited in independent claim 13, as amended, would not have been obvious in view of Wilcox et al., alone or in any proper combination with either Sasso et al. or Chappius under 35 U.S.C. § 103(a). Neither Wilcox et al., nor Sasso et al., nor Chappius disclose, teach, or suggest an “an insert disposed inside the cannulated bone-screw shaft such that the insert completely blocks all of the bone screw fenestrations” as recited in independent claim 13, as amended. (emphasis added). In contrast, Wilcox et al. discloses both “a sump or bladder 100” and “a sump or bladder 110” (both identified as inserts by the Examiner). See col. 9, lines 14-18, col. 10, lines 42-43, and Figs. 8-13. The “bladder 100” is placed into the “longitudinal cavity 88” of a “nail 85.” See col. 9, lines 14-18 and Figs. 8-10. The “bladder 110” is placed into “nail 105.” See col. 10, lines 42-43 and Figs. 11-13. The “bladder 100” and the “bladder 110” of Wilcox et al. appear to be made from “a thin flexible biocompatible material.” See Abstract. Further, there appears to be a gap between the outer surface of “bladder 100” and the interior surface of “nail 85,” as shown in Fig. 10. There also appears to be a gap between the outer surface of “bladder 110” and the interior surface of “nail 105,” as shown in Figs. 12 and 13.

As such, neither the “bladders” nor any other component taught by Wilcox et al. appear to be an “an insert disposed inside the cannulated bone-screw shaft such that the insert completely blocks all of the bone screw fenestrations” as recited in independent claim 13, as amended. Further, neither Sasso et al. nor Chappius overcome the deficiencies of Wilcox et al. The “elongate guiding portion 14” of Sasso et al. does not appear to be capable of blocking the “openings 32” of “bone anchor 10.” See e.g., Figs. 2 and 3. Further, the “anchor 10” of Chappius does not appear to include an insert. See e.g., Fig. 1. Because the references cited by the Examiner, fail to disclose, teach, or suggest at least one element of independent claim 13, the Applicant respectfully asserts that the “device for delivering a substance to a bone” recited in independent claim 13, as amended, would not have been obvious in view of Wilcox et al., alone or in any proper combination with either Sasso et al. or Chappius under 35 U.S.C. § 103(a).

In view of the amendments to independent claim 13 and the arguments set for above, Applicant respectfully asserts that independent claim 13 and corresponding dependent claims 14-17 are patentable over Wilcox et al. in view of either Sasso et al. or Chappius under 35 U.S.C. § 103(a).

### 3. Amendments to Dependent Claims 2 and 3

Applicant has amended dependent claim 2 to recite “wherein at least one insert fenestration aligns with at least one bone-screw fenestration in the second position.” Claim 2 has been amended to further specify the position of the “insert fenestrations” when the insert is in the second position. This amendment is supported by the specification as originally filed. See e.g., Application, paragraph [0037]. As discussed above, the references cited by the Examiner, fail to disclose, teach, or suggest at least one element of independent claim 1. Therefore, Applicant respectfully asserts that dependent claim 2, as amended, is patentable over Wilcox et al. in view of either Sasso et al. or Chappius under 35 U.S.C. § 103(a).

Applicant has amended dependent claim 3 to recite that “insert is rigid.” Claim 3 has been amended to further define “the insert.” This amendment is supported by the specification as

originally filed. See e.g., Application, paragraph [0038] and Fig. 3(b). As discussed above, the references cited by the Examiner, fail to disclose, teach, or suggest at least one element of independent claim 1. Therefore, Applicant respectfully asserts that dependent claim 3, as amended, is patentable over Wilcox et al., in view of either Sasso et al. or Chappius under 35 U.S.C. § 103(a).

4. Conclusion

Claims 1-17 are pending in the present application. Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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